UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,459	11/30/2005	Andreas Christel	76775.8	4730

27162 7590 07/31/2008

CARELLA, BYRNE, BAIN, GILFILLAN, CECCHI,
STEWART & OLSTEIN
5 BECKER FARM ROAD
ROSELAND, NJ 07068

EXAMINER	
MESH, GENNADIY	

ART UNIT	PAPER NUMBER
1796	

MAIL DATE	DELIVERY MODE
07/31/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/537,459	CHRISTEL ET AL.	
	Examiner	Art Unit	
	GENNADIY MESH	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *6/2/2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) *17-22,24 and 25* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16 and 23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *06/03/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-16 and 23 , drawn to Method of producing a polyester hollow body.

Group II, claim(s) 17 – 18 and 24 – 25 , drawn to Polyester hollow body.

Group III, claim(s) 19 – 22, drawn to Polyester material.

The inventions listed as Groups I,II and III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Technical Feature as a Method of producing hollow body is not a Special Technical Feature, because it fails to define contribution over prior art – see WO 01/42334 (cited in International Search Report dated August - reference provided by Applicant).

During a telephone conversation with Mr. Frank Hand on June 2,2008 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-16 and 23. Affirmation of this election must be made by applicant in replying to this Office action. Claims 17 – 22 and 24-25 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim

remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Abstract

2. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

Specification

3. The disclosure is objected to because of the following informalities:

3.1. Formula (1) on page 3 is missing. Appropriate correction is required.

3.2. Claims 9, 11, 12, 13 and 15 use word " concerns" or "concerning" - (see claim 15) instead of " comprise(s) or comprising". Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention: there is no indication in the claim or in the specification as to a quantitative value for T0 by which applicant denotes an optimum processing temperature. Consequently, the metes & bounds of the claim cannot be ascertained. This renders the scope of the claim indefinite.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1 - 5, 9 - 13 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Schiavone (US 2001/0034431).

Regarding Claims 1 – 5, 9 - 13 and 16 Schiavone disclosed method for producing polyester bottle resins with reduce acetaldehyde content(see [0094]), wherein:

i) polyester prepolymer obtain by melt polymerization has IV value in a range from 0.25 dl/g to about 0.40 dl/g – see abstract

ii) polyester prepolymer further polymerized by solid state polymerization to form polymer with IV of at least 0.7 dl/g – see abstract

iii) particle size of treated polyester in a range from 1mm to about 10 mm – see claim 4

iiii) bottle perform formed from high molecular weight polyester – see claim 3

Regarding limitation of Claim 2 : polyester material in a form of pellets, chips or granules has to be heated up and melted (plasticized) by extruder or injection molding machine in order to process material by melt processing method - therefore limitation of claim2 as " material is plasticized at least partially before and/or during its forming"

inherently meet by any melt processing methods, including injection molding, blow molding and extrusion - see [0003] and [0005].

Regarding limitations of Claims 3-5 also see [0003] and [0005].

Regarding limitation of Claim 9 see Examples 7 and 9.

With respect to the recitation of "approximately 100% of terephthalic acid" in claim 11: since there is no specific information in the disclosure as to how the term "approximately" is to be construed, "approximately" is taken to be equivalent to "about". Since "about" permits some "wiggle room" for interpretation, it is proper and reasonable to apply a reference disclosing a terephthalic acid range of 90 wt% and higher against applicant's approximately 100 wt%."

Also note, that use of "about" is warning that exactitude is not claimed but rather a contemplated variation. When there is no substantial or material difference in the product, and the difference is colorable, merely, there is in fact literal readability, if proper weight is given to the qualifying word "about" to amounts significantly lower or higher than the numerically claimed limitation. Kolene Corp. v. Motor City Metal Treating, Inc. (DC EMich) 163 USPQ 214.

Regarding Claims 11, 12 and 13 see Schiavone - [0021], [0023].

Regarding limitation of Claim 16 see Schiavone [0094].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schiavone (US 2001/0034431) in view of Yamada et al.(US 4,217,161).

Discussion above (see paragraph 5) with respect to Schiavone (US 2001/0034431) incorporated herein by reference.

Schiavone discloses method for production of polyester bottles, including step wherein perform is reheated to specific temperature range, but silent regarding preheating perform by microwave energy.

However, Yamada teach that microwave irradiator can be used for heating and maintaining parison (perform) at draw-molding temperature during blow molding process (see column 13, lines 59-64).

Therefore, it would be obvious to one of ordinary skill use microwave heater per teaching of Yamada in process of obtaining polyester bottle disclosed by Schiavone with reasonable expectation of success.

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schiavone (US 2001/0034431) in view of Smith et al.(4,482,586) combine with evidence given by Crawford, Roy J.; Throne, James L.; Rotational Molding: Introduction and Chapter 6; 2002.

Discussion above (see paragraph 5) with respect to Schiavone (US 2001/0034431) incorporated herein by reference.

Note, that limitation of claim 8 as " sintering" was understood in light of Applicant's Specification - see paragraph [0029] : According to another preferred embodiment of the method in accordance with the invention, the forming occurs by **sintering** of the thus treated polyester material, with the polyester material being introduced into a mold and being formed by **sintering into a preform**. The introduction of the polyester material into the mold preferably occurs by gravitational forces, by **movement** by means of a conveying medium and/or **by inertia forces, especially by centrifugal forces**.

Thus, rotational molding, wherein powder or pellets introduced to rotated mold, distributed by **centrifugal forces** and **sintered** (see Rotational Molding, Chapter 6, paragraph 6.12) meet limitation of Claim 8.

Schiavone discloses method for production of polyester bottles by blow molding or injection molding technique, but silent regarding sintering.

However, Smith teach that polyester container(bottle - see Fig.1) can be made by rotational molding (see column 2, lines 62-66 and column 11,lines 4 - 10) and teach that in order to obtain 'good physical properties, it is desirable that orientation is imparted in various polyester layers" (column 11, lines 9-12).

Note, that articles obtain by rotational molding process are free from orientation (see Rotational Molding: Introduction, Table 1.2 on page 10).

Therefore, it would be obvious to one of ordinary skill modify process disclosed by Schiavone and use rotational molding method in order to obtain bottle with no orientation and good physical properties as it taught by Smith combine with Crawford.

8. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schiavone (US 2001/0034431) in view of Duh (US 2002/0026030).

Discussion above (see paragraph 5) with respect to Schiavone (US 2001/0034431) incorporated herein by reference.

As it was explained above (see paragraph 6) Schiavone discloses production method of the polyester, comprising step of Solid State polymerization(SSP), but silent regarding specific steps as preheating time before of SSP process and specific features of apparatus used for SSP process as it claimed in claim 15.

However, Duh teach that "during preheating step granules of PET (polyethylene terephthalate) becomes sticky because of the rapid rise of the temperature. Therefore, a preheater, which could be a fluid bed or agitated heat transfer unit, must provide agitation or forced motion to prevent agglomeration of PET granules" and" residence time in the preheater ranges from a few minutes to about 60 minutes, depending on the type of the preheater used"- see [0006].

Therefore, it would be obvious to one of ordinary skill to modify process disclosed by Schiavone and conduct preheating step, wherein residence time various in a range of several minutes per teaching of Duh depends of type of prheater unit used with reasonable expectation of success.

Regarding limitation of Claim 15 see Duh Fig.2 and paragraph[0040], wherein Duh provide description of discharging means as fluid bed with perforated deck, comprising gas flow in order to heat up or cool polyester granules.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GENNADIY MESH whose telephone number is (571)272-2901. The examiner can normally be reached on 10 a.m - 6 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272 1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Gennadiy Mesh
Examiner
Art Unit 1796

/GM/

/VASUDEVAN S. JAGANNATHAN/
Supervisory Patent Examiner, Art Unit 1796